

REMARKS

This amendment is a full and timely response to the Office Action dated October 22, 2007. In the amendment, claims 8, 11, 14, 24 and 26 have been cancelled without prejudice or disclaimer to further prosecution of their subject matter in this or another application. Claims 9, 12, and 25 have been amended. These amendments add no new matter. Claims 1-7, 9, 10, 12, 13, 15-23, 25, and 27-29 are now pending in the application. Reexamination and reconsideration are respectfully requested.

Claims 8-13, 15-22, 24, 25, 28, and 29 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. This rejection is respectfully traversed.

Claims 8, 11 and 24 have been cancelled without prejudice or disclaimer.

With regard to claims 9, 10, 12, 13, 18, 19, 21, 22 and 25, the original disclosure clearly supports the recited features. For example, paragraph [0029] of the specification as filed states that:

“The gamma correction according to this embodiment is based on a correction curve (hereinafter referred to as a gently rising logarithmic curve) composed of a logarithmic curve whose slope at the origin is 5.0 or less or a correction curve (hereinafter referred to as an ITU-709 logarithmic curve) which is a composite of a curve segment based on the ITU-709 standard lying from the origin to a predetermined level of an input signal and a logarithmic curve segment lying above the predetermined level of the input signal. Both curve segments of the composite are combined continuously and have the same slope at the predetermined level of the input signal.”

(U.S. Pub. No. 2004/0196394 A1, at [0029]).

Thus, the specification as filed clearly states that the curve segments may be a composite of a curve segment based on the ITU-709 logarithmic curve standard from the origin to a predetermined level of an input signal and a logarithmic curve segment lying above that level. The disclosure also states that the curve segments of the composite are combined continuously and

have the same slope at the predetermined level of the input signal. Since the class C^1 consists of all differentiable functions whose derivative is continuous, this is clearly the type of correction curve described in the specification.

With regard to claims 17 and 20, the person of ordinary skill in the art would clearly recognize the disclosed embodiments and the equation $Signal_{OUT} = a * (Signal_{IN})^r$ as a standard gamma curve relationship. As such, the specification at least inherently, if not explicitly, discloses the features recited in these claims.

With regard to claim 15, 16, 28 and 29, the Action appears to be conflating claim *breadth* with claim *indefiniteness*. This is an improper application of §112. Additionally, the disclosure of one embodiment is sufficient to support the claimed invention. Here, there are multiple examples that fit the general example set forth in claims 15, 28 and 29, as well as within the ranges cited in claim 16. See MPEP § 2173.04.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 14 and 26 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 14 and 26 have been cancelled without prejudice or disclaimer. Accordingly, Applicant respectfully requests reconsideration and withdrawal of these grounds of rejection as moot.

Claims 1, 2, 4, 5, 7, 14, 23, 26, and 27 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Charles Poynton, *A Technical Introduction to Digital video*, John Wiley & Sons 1996 ("Poynton"). This rejection is respectfully traversed.

Claim 1 recites: “[a] gamma correction device in an image capturing apparatus, the gamma correction device performing gamma correction on a video signal from an image capturing element on the basis of at least one correction curve having a predetermined input-output characteristic, wherein said at least one correction curve has a slope of 5.0 or less at the origin such that a corrected video signal conforms to film properties.”

Poynton does not disclose or suggest these claimed features. In order to anticipate the claim, the reference must disclose each and every feature recited in the claimed invention. Here, Poynton is deficient in this regard. Poynton does not disclose the claimed type of gamma curve, wherein the input is a video signal and the corrected video signal conforms to *film* properties. It is noted the REC 709 corresponds to video, not film. Additionally, as noted in the action, Poynton teaches that the slope of REC 709 should be used for all but very unusual conditions. (Action, at p. 6). There is no mention of the particular conditions corresponding to the correction claimed by Applicant, nor therefore is there an implementation of the particular correction curve to carry out video signal input to film property correction as claimed. Accordingly, Poynton is at least deficient in failing to disclose or suggest *wherein said at least one correction curve has a slope of 5.0 or less at the origin such that a corrected video signal conforms to film properties*, as claimed by Applicant.

Independent claim 4 recites: *[a] gamma correction device in an image capturing apparatus, the gamma correction device performing gamma correction on a video signal from an image capturing element on the basis of at least one correction curve having a predetermined input-output characteristic, wherein said at least one correction curve comprises a composite of a first correction curve segment lying from the origin to a predetermined level of an input signal such that a corrected video signal conforms to a cathode-ray tube monitor and a second correction curve segment lying above the predetermined level of the input signal such that the corrected video signal conforms to film properties, and both correction curve segments are continuously combined and have the same slope at the predetermined level of the input signal.*

These claimed features are also neither disclosed nor suggested by Poynton. As noted regarding claim 1, Poynton does not disclose the claimed type of gamma curve, wherein the input is a video signal and a particular type of correction curve produces a corrected video signal conforming to *film* properties. There is no mention of the particular conditions corresponding to the correction claimed by Applicant, nor therefore is there an implementation of the particular correction curve to carry out video signal input to film property correction as claimed. Claim 4 also further specifies *a second correction curve segment lying above the predetermined level of the input signal such that the corrected video signal conforms to film properties*. There is absolutely no mention in Poynton of this type of curve segment. At best, Poynton mentions an exponential power function as cited in the Action, but there is no mention of conformance to film properties.

Still further, the two segments are “*continuously combined ... at the predetermined level of the input signal*.” There is no mention in Poynton of a potential point of inflection at the predetermined level of the input signal nor is there any mention of continuously combining the two segments in this regard.

Poynton thus clearly fails to disclose each and every element recited in independent claims 1 and 4. The dependent claims respectively incorporate the features recited in the independent claims, and also include their own separately recited patentably distinct features, and thus are also not disclosed by Poynton.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1, 2, 4, 5, 7, 23, and 27 under 35 U.S.C. § 102(b) as allegedly being anticipated by Poynton.

Claims 3 and 6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Poynton in view of U.S. Pub. No. 2002/0061142 of Hiramatsu (“Hiramatsu”). This rejection is respectfully traversed.

Claims 3 and 6 respectively depend from claims 1 and 4 and thus incorporate the features recited therein. As noted above, Poynton does not disclose or suggest the claimed type of gamma curve, wherein the input is a video signal and a particular type of correction curve produces a corrected video signal conforming to *film* properties. Additionally, particularly with regard to claim 4, there is no mention of a correction curve that comprises first and second curve segments where the second correction curve segment lies above the predetermined level of the input signal such that the corrected video signal conforms to film properties.

Hiramatsu does not remedy the deficiencies of Poynton. Hiramatsu discloses an image correction apparatus that identifies the nature of the target image to be corrected as being a still image or a moving image. When it is a moving image, correction is performed with regard to the entire image, and where it is a still image, the image is divided into multiple sections and correction is carried out with regard to the image in each such section. There are some particular types of correction, as noted in the action. However these corrections clearly pertain to characteristics such as contrast, brightness, and the like. As with Poynton, there is absolutely no mention of a second correction curve segment that specifically causes the corrected video signal to conform to film properties. Also, there is no disclosure of continuously combining the segments at a point of inflection between the first and second segments at the predetermined level of the input signal as claimed.

Since even the combination of Poynton and Hiramatsu would still fail to yield the features of Applicant's claimed invention, there is no *prima facie* case of obviousness for the independent claims, nor therefore the dependent claim that incorporate such features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Poynton in view of Hiramatsu.

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 80001-2973 from which the undersigned is authorized to draw.

Dated: January 18, 2008

Respectfully submitted,

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